REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REQUEST TO UPDATE STATUS OF SPECIFICATION

The Examiner requested Applicants to update status of related application mentioned in paragraphs 0004 and 0018. Applicants believe that that Examiner meant paragraphs 0003 and 0017. As requested, Applicants have updated the specification to state that the patent application Serial No. 09/474,031, filed on December 28, 1999 has now issued as U.S. Pat. 6,970,417.

II. REJECTION OF CLAIMS 1-3, 7-9, AND 12-14 UNDER 35 U.S.C. § 102

The Examiner rejected claims 1-3, 7-9, and 12-14 as being anticipated by Charny et al. (US Patent 6,778,492, issued August 17, 2004) hereinafter referred to as "Charny." The rejection is respectfully traversed.

Charny teaches fast rerouting traffic around a failed node or switch using backup tunnels. (See Charny, Col. 5, lines 38-41). More than one backup tunnel may be provided to guarantee enough bandwidth in the event of a failure (See Charny, Col. 5, lines 59-64). More generally, M number of backup tunnels may protect N number of paths, wherein all N paths may fail simultaneously and all be protected (See Charny, Col. 6, lines 57-68).

The Examiner's attention is directed to the fact that Charny fails to teach or suggest a switching device or a method for providing connectivity through a re-configurable transport network to a spare interface on a second router in an IP network, as positively claimed by the Applicants. For example, Applicants' claims 1, 7, and 12 positively recite:

> 1.   A method of operating an Internet Protocol (IP) network comprising a plurality of routers, each router further comprising a plurality of interfaces, the method comprising the steps of:

connecting a spare interface on a first router in the IP network to a re-configurable transport network which provides connectivity to a spare interface on a second router in the IP network; and

upon detection of a pre-designated condition in the IP network, switching traffic designated for a primary interface at the first router to the spare interface at the first router in the IP network, thereby causing the traffic to flow across spare capacity on the re-configurable transport network between the spare interface on the first router and the spare interface on the second router in the IP network.

7.   A device-readable medium storing program instructions for performing a method of operating a router in an Internet Protocol (IP) network, the router further comprising a routing table and a plurality of interfaces including a spare interface providing connectivity through a re-configurable transport network to a spare interface on a second router in the IP network, the method comprising the steps of:

receiving a signal indicating a pre-designated condition in the IP network; and

reconfiguring the routing table in the router so as to switch traffic designated for a primary interface at the router to the spare interface at the router, thereby causing the traffic to flow across spare capacity on the re-configurable transport network between the spare interface on the router and the spare interface on the second router in the IP network.

12.   An Internet Protocol (IP) router comprising:

a plurality of interfaces including at least one primary interface and a spare interface providing connectivity through a re-configurable transport network to a spare interface on a second router in an IP network; and

a routing table that, upon receipt at the router of a signal indicating a pre-designated condition in the IP network, is reconfigured so as to switch traffic designated for a primary interface at the router to the spare interface at the router, thereby causing the traffic to flow across spare capacity on the re-configurable transport network between the spare interface on the router and the spare interface on the second router in the IP network.

In one embodiment, Applicants' invention discloses a network router having spare IP interfaces normally in an inactive or unconfigured state with respect to the IP layer. The spare interfaces can be connected via a re-configurable transport network ("RTN") to form new links at the IP layer as needed and then returned to their inactive, unconfigured state when no longer needed (See e.g., Applicants' specification, Paragraph [0016]).

582011_1   Page 9

In contrast, Charny fails to teach or suggest Applicants' invention. Specifically, Charny fails to teach or suggest a switching device or a method for providing connectivity through a re-configurable transport network to a spare interface on a second router in an IP network. Charny is directed to fast rerouting traffic around a failed node or switch using backup tunnels. Although the Examiner alleged that Charny's backup tunnels connected between routers corresponds to connecting spare interfaces on a router in the IP network to the re-configurable transport network, Applicants respectfully submit that the Examiner has mischaracterized the teachings of Charny. The backup tunnels in Charny are preferably assigned **in advance** of failure. A packing algorithm is employed to assign a specific path to a corresponding tunnel to ensure enough bandwidth is available to satisfy the traffic. (See Charny, Col. 7, lines 8-62). As such there is no teaching or suggestion of providing connectivity through a re-configurable transport network to a spare interface on a second router in an IP network as disclosed by Applicants' invention. For example, as taught in Applicants' specification, Paragraph [0016], spare interfaces can be connected via a **re-configurable** transport network ("RTN") to form new links at the IP layer as needed and then returned to their inactive, unconfigured state when no longer needed.

Therefore, the Applicants submit that independent claims 1, 7 and 12 are not anticipated by the teachings of Charny and, as such, fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

In addition, dependent claims 2, 3, 8, 9, 13, and 14 depend from independent claims 1, 7 and 12, respectively, and recite additional limitations. As such, and for the exact same reason set forth above, the Applicants submit that claims 2, 3, 8, 9, 13, and 14 are also patentable over Charny and respectfully request the rejection be withdrawn.

III. REJECTION OF CLAIMS 4-6, 10, 11, 15, AND 16 UNDER 35 U.S.C. § 103
Claims 4-6, 10, 11, 15, and 16

The Examiner rejected claims 4-6, 10, 11, 15, and 16 as being unpatentable over Charny in view of Wing So (US patent application publication 2002/0109879, published August 15, 2002) hereinafter referred to as "Wing So". Applicants respectfully traverse the rejection.

Wing So discloses network configuration and control information encoded and used to modulate data carried on an optical signal. (See Wing So, Abstract).

The Examiner's attention is directed to the fact that Charny and Wing So (either singly or in any permissible combination) fail to teach or suggest a switching device or a method for providing connectivity through a re-configurable transport network to a spare interface on a second router in an IP network, as positively claimed by the Applicants.

As discussed above, Charny fails to teach or suggest a switching device or a method for providing connectivity through a re-configurable transport network to a spare interface on a second router in an IP network. This deficiency is not bridged by the teaching of Wing So. Wing So only discloses network configuration and control information encoded and used to modulate data carried on an optical signal. As such, the combination of Charny and Wing So would not make obvious Applicants' independent claims 1, 7, and 12.

In addition, dependent claims 4-6, 10, 11, 15, and 16 depend from independent claims 1, 7, and 12, respectively and recite additional limitations. As such, and for the exact same reason set forth above, the Applicants submit that claims 4-6, 10, 11, 15, and 16 are also patentable over Charny and Wing So and respectfully request the rejection be withdrawn.

IV. Claim Amendments

Applicants made several claim amendments to provide clarity to the amended claims. These amendments are not made in view of the cited references.

582011_1   Page 11

CONCLUSION

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §§ 102, and 103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,

June 25, 2007

Patterson & Sheridan, LLP
595 Shrewsbury Avenue
Shrewsbury, New Jersey 07702

Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 530-9404

582011_1   Page 12